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FREE PLAY ON A GROUP OF POKER MACHINES

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(56) Prior Art Documents
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(57) Claim

1. A slot machine of a type comprising:

(a) credit means, for crediting a player with a number of credits;

(b) game initiation means operable by the player to initiate a game on the machine;

(c) display means adapted to display a plurality of indicia in response to the game initiation means;

(d) credit adjustment means arranged to alter the credit means in response to combinations of indicia shown by the display means;

(e) payout means operable by the player to return a payment corresponding to the credit recorded by the credit means; and

(f) control means for controlling the slot machine wherein the control means is provided with two operating modes, a first mode to prevent operation of the game initiation means unless a credit is recorded in the credit means and enable operation of the payout means, a second mode allowing operation of the game initiation means regardless of the credit recorded in the credit means, and preventing operation of the payout means only, such that switching between modes occurs in response to an electronic mode switching signal fed to the control means,

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said switching signal being sourced externally of the machine.

10. A gaming system comprising a plurality of slot machines connected to a central control unit, each machine having a credit means for crediting a player with a number of credits and a payout means operable by the player to return a payment corresponding to the credit recorded by the credit means, each machine being operable in two modes, a first mode in which a player must establish a credit with the credit means of the machine before a game can be initiated with that machine, and a second mode in which the player can initiate a game with the machine regardless of the credit recorded in the credit means of that machine, the payout means only being operable in the first mode, wherein the central control unit has a plurality of mode switching signal outputs which are connected to the respective mode switching signal inputs of each machine such that switching between the modes of operation for each machine is controllable from the central control unit.

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Complete Specification for the invention entitled:

"TOURNAMENT SYSTEM"

The following statement is a full description of this invention
including the best method of performing it known to us:-

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The present invention relates generally to slot machines, otherwise known as poker machines or fruit machines and in particular the invention provides a new slot machine capable of operating in two distinct modes, the first being substantially identical to that of known poker machines and the second being a "tournament" mode whereby the operators of the poker machine may make use of the machine in a non-paying mode to run a variety of competitions.

In the past, casinos have been known to provide slot machines for periods of free play, however such play has generally been confined to special machines set aside for this purpose and these machines were not readily switchable from free playing operation to normal operation. The proposed invention permits any number of machines to be used in the conventional mode and to be changed at will to a free playing mode or back again to the conventional mode with a minimum of time and effort.

According to a first aspect the present invention consists in a slot machine of a type comprising:

- (a) credit means, for crediting a player with a number of credits;
- (b) game initiation means operable by the player to initiate a game on the machine;
- (c) display means adapted to display a plurality of indicia in response to the game initiation means;
- (d) credit adjustment means arranged to alter the credit means in response to combinations of indicia shown by the display means;
- (e) payout means operable by the player to return a payment corresponding to the credit recorded by the credit means; and
- (f) control means for controlling the slot machine wherein the control means is provided with two operating modes, a first mode to prevent operation of the game

initiation means unless a credit is recorded in the credit means and enable operation of the payout means, a second mode allowing operation of the game initiation means regardless of the credit recorded in the credit means, and preventing operation of the payout means, such that switching between modes occurs in response to an electronic mode switching signal fed to the control means, said switching signal being sourced externally of the machine.

10 In a preferred embodiment, when the mode switching signal goes to the active state thereby switching the machine to the second mode of operation the control means of the machine waits for the completion of any uncompleted game and then disables the payout means, stores the credit balance in temporary storage and zeroes the credit means. 15 When the signal goes from active to inactive state the control unit freezes all operation of the machine until a control switch is operated, either by an external control source or manually on each machine, at which time the credit balance in the credit means is retrieved from the temporary storage and the machine is switched back to the first mode of operation.

According to a second aspect the present invention consists in a gaming system comprising a plurality of slot machines connected to a central control unit, each machine having a credit means for crediting a player with a number of credits and a payout means operable by the player to return a payment corresponding to the credit recorded by the credit means, each machine being operable in two 25 modes, a first mode in which a player must establish a credit in the credit means of the machine before a game can be initiated on that machine, and a second mode in which the player can initiate a game with the machine regardless of the credit recorded in the credit means of that machine, the payout means only being operable in the 30 35

first mode, wherein the central control unit has a plurality of mode switching signal outputs which are connected to the respective mode switching signal inputs of each machine such that switching between the modes of operation for each machine is controllable from the central control unit.

In a further preferred embodiment the central control unit includes a timer means which sets a prescribed period of time for each machine to remain in the second mode of operation.

It is also envisaged that each machine may be switched back to the first mode of operation either by the central control unit or manually by an operator or casino attendant.

An embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:-

Fig. 1 illustrates a poker machine according to the present invention;

Fig. 2 schematically illustrates the interconnection of the various functional areas of the poker machine of Fig. 1;

Fig. 3 schematically illustrates a tournament controller for controlling a plurality of machines of the type illustrated in Figs. 1 and 2;

Fig. 4 is a block diagram of the tournament controller of Fig. 3 with machines connected thereto;

Fig. 5 illustrates the physical configuration of the tournament controller of Figs. 3 and 4; and

Fig. 6 illustrates a flow chart of the control sequence of a poker machine when in tournament mode.

Referring now to Figs. 1 and 2, typically poker machines include a secure housing 10 in which the control unit 11 and other functional components of the poker machine are mounted, including a coin slot 12 and a coin

detector 13 which are provided to enable the player to "purchase" a game or games on the machine, a credit meter 14 to indicate the current credit of the player, the credit being provided either by insertion of coins into the coin slot 12 or as a result of winning games on the machine, one or more game initiation switches 15, a payout device 16 which supplies coins to a payout chute 17 at the player's request and in response to the player's credit on the credit meter 14, indicia display means 18 which may comprise a video screen or a plurality of rotatable wheels carrying strips of indicia on their periphery and a jackpot switch 19 which is used among other things to clear the machine after a large jackpot has been paid manually by casino staff. Some machines are also provided with an additional display means such as a dot matrix display 21 which can be used to display messages to the player relating to his playing options, machine status or if the machine is not in use it may be employed to display messages to attract players to the machine.

In addition to these prior art machines, the machine of the present invention incorporates a mode switching signal input 22 (see Fig. 2) in the control unit. This signal input is used to indicate to the control unit when the machine is required to switch from a first or normal play mode to a second tournament or free play mode and vice versa. This mode switching signal input 22 is generated by a tournament control unit centrally located in the casino and connected by similar signal lines to a plurality of machines within the casino.

Referring to Fig. 3, the tournament controller most preferably incorporates a "tree" or "nested" arrangement by which individual or several slot machines can be switched from first to second mode of operation. In the particularly preferred embodiment shown the central control unit or tournament control centre includes several

timers 31, 32, 33, 34 which allows the operator to select a prescribed period of time in which the machine selected remains in the second mode of operation.

The timer means shown in Fig. 3 is made up of group timer 31, and several sub-group timers 32, 33 and 34.

Group timer 31 is used to set a prescribed period of time for all machines connected, while sub-group timers 32 and 33 set a prescribed period of time for a sub-set of all the machines. Sub-group timers 34, in this case, may set the time period for individual machines.

It can be seen therefore that any and all combinations of machines can be switched to the second mode of operation for any desired period of time.

In the present embodiment the timers are implemented using electronic timer circuits, however it is envisaged that further embodiments would make use of microprocessor controls or any other suitable timer. A block diagram of the tournament controller of Fig. 3 with slot machines connected is illustrated in Fig. 4.

In this particular instance twenty-eight slot machines are connected. The group timer 31 controls all twenty-eight machines. Sub-group timers 32 and 33 control fourteen machines each and sub-group timers 34 control individual machines, through signal input 22.

An example of the physical arrangement of a simplified version of the controller is illustrated in Fig. 5 in which the tournament control panel 41 is illustrated as having twenty eight adjustable timer switches 43, there being one for each machine connected to the controller. Associated with each machine timer 43 is also a mode switching/timer start switch 44 and a timing indicator light 45 which are used, respectively, to switch a selected machine to the second or tournament mode thereby start the timer and to indicate that the timer is still operating and the machine remains in second or

tournament mode. As well as the individual machine
timers 43, the control panel 41 is provided with a single
group timer 46 with its associated start switch 51 and
indicator light 52. The control panel 41 is also provided
5 with a mains power indicator light 48, a system
indicator 49 to indicate when the system is turned on and
a key operated system power switch 47 which is provided to
ensure that the system is not used by unauthorized persons.

Turning to the individual poker machines in the
10 gaming or tournament system, each machine as previously
stated is connected to the central tournament control unit
via a mode switching signal line 22. When that signal
goes to its active, or tournament, state, a preferable
procedure as illustrated in the flow chart of Fig. 6, is
15 executed.

When the mode switching signal is received by an
individual machine which is in the first operating mode,
the machine tests to determine whether the current game is
complete. If not, the machine remains in the first or
20 normal play mode until completion of the current game is
achieved. Having completed the current game, the "press
to collect" button or payout means is disabled, preventing
the machine from paying out any values credited to the
credit meter. The contents of the credit meter previous
25 to the machine entering the second or tournament mode are
temporarily stored by the machine, for retrieval after the
tournament mode is completed, and the credit meter is
zeroed ready for a tournament to commence.

The machine controller 11 (in Fig. 1) then commences
30 operating in a second or tournament mode whereby the
machine can be played without inserting coins or deducting
credits from the credit meter. During this tournament
mode, however, winning combinations still result in a
credit being credited to the credit meter. During
35 tournament mode apart from the disabling of the "press to

collect" button, and there being no need to have a credit on the credit meter to play a game, the machine operates in its normal manner with the player being able to initiate games and amass credits on the credit meter in the normal way.

When the machine detects that the prescribed period set by the time is up and the mode switching signal is no longer in the active state, the machine "freezes" at the end of the current game and cannot then be played again until a member of the casino staff operates a "cancel credit" (or jackpot) key switch 19 (see Fig. 2) to clear the credit meter and reinstate the credit previously held therein prior to entry into the second or tournament mode. This resetting of the machine and switching back to first mode may be accomplished by the central tournament controller or by a casino attendant on each individual machine. Before clearing the credit meter, the casino staff member may assess the value achieved on the credit meter during the tournament mode operation and award prizes to players on the basis of the scores achieved.

Once the credit meter has been reinstated to the value which it held prior to the commencement of tournament mode, the "press to collect" button is also reinstated and the machine will once again operate in its first or normal play mode in which a credit must be held in the machine before initiation of a game can commence and credits are deducted from the credit meter on each play of the machine.

It will be recognized by persons skilled in the art that the present invention is applicable to all kinds of slot machines including video slot machines and slot machines having stepping motor driven or free spinning reel displays. However, whereas machines having free spinning wheels have return rates determined by the physical placement of indicia on those reels, stepping

motor driven reel machines and video machines have return rates determined by the random number generating algorithms in the control unit and the mapping of the numbers so generated to the available display indicia.

- 5 Therefore, while the odds of the free spinning reel machines are substantially fixed it is possible to alter the odds in stepping motor driven machines and video machines by running a different selection algorithm and in
10 during tournament mode would be changed to provide a higher rate of return, or winning combinations of indicia.

Multi-line machines (that is, machines which are capable of examining multiple combinations of indicia on the indicia display 18 when determining winning
15 combinations) can also have their odds altered by "paying" on more than one line (and preferably on all available lines) when the machine is in tournament mode.

It is also envisaged that in the tournament mode as in the first or normal play mode the player can select the
20 desired number of credits to be played with for each game.

In a further embodiment of the invention, the simple tournament mode control signal described herein could be replaced by a communication system connecting all of the machines in the tournament group, whereby interactive
25 games between machines could be run during tournament mode and whereby the scores of each machine at the end of the tournament could be reported to the controller in order that the controller could select the machine or machines within the group with a winning total score, which might
30 be selected as the highest score or by some other criteria.

It will be recognised by persons skilled in the art that numerous variations and modifications may be made to the invention as described above without departing from the spirit or scope of the invention as broadly described.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:-

1. A slot machine of a type comprising:

(a) credit means, for crediting a player with a number of credits;

(b) game initiation means operable by the player to initiate a game on the machine;

(c) display means adapted to display a plurality of indicia in response to the game initiation means;

(d) credit adjustment means arranged to alter the credit means in response to combinations of indicia shown by the display means;

(e) payout means operable by the player to return a payment corresponding to the credit recorded by the credit means; and

(f) control means for controlling the slot machine wherein the control means is provided with two operating modes, a first mode to prevent operation of the game initiation means unless a credit is recorded in the credit means and enable operation of the payout means, a second mode allowing operation of the game initiation means regardless of the credit recorded in the credit means, and preventing operation of the payout means only, such that switching between modes occurs in response to an electronic mode switching signal fed to the control means, said switching signal being sourced externally of the machine.

2. A slot machine as claimed in claim 1 wherein switching from the second mode to the first mode is also controlled by an electronic mode switching signal, sourced externally of the machine and fed to the control means.

3. A slot machine as claimed in claim 1 wherein switching from the second mode to the first mode is performed manually on each machine.

4. A slot machine as claimed in any one of claims 1 to 3 wherein the electronic mode switching signal is produced

by a central control unit to which a plurality of slot machines are connected.

5. A slot machine as claimed in claim 4 wherein the central control unit includes a timer means which sets a prescribed period of time for each machine to remain in the second mode of operation.

6. A slot machine as claimed in any one of claims 1 to 5 wherein prior to switching the machine to the second mode of operation, the credit recorded in the credit means is stored temporarily by the machine, for retrieval when the machine is switched back to the first mode of operation.

7. A slot machine as claimed in any one of the preceding claims wherein any game initiated when the machine is in the first mode is completed prior to the machine being switched to the second mode.

8. A slot machine as claimed in any one of the preceding claims wherein the credit means is set to zero credit when the machine is switched to the second mode.

9. A slot machine as claimed in any one of the preceding claims wherein no credit is deducted from the credit means for each game played when the machine is operated in the second mode.

10. A gaming system comprising a plurality of slot machines connected to a central control unit, each machine having a credit means for crediting a player with a number of credits and a payout means operable by the player to return a payment corresponding to the credit recorded by the credit means, each machine being operable in two modes, a first mode in which a player must establish a credit with the credit means of the machine before a game can be initiated with that machine, and a second mode in which the player can initiate a game with the machine regardless of the credit recorded in the credit means of that machine, the payout means only being operable in the first mode, wherein the central control unit has a plurality of mode switching signal outputs which are

connected to the respective mode switching signal inputs of each machine such that switching between the modes of operation for each machine is controllable from the central control unit.

11. A gaming system as claimed in claim 10 wherein the central control unit includes a timer means which sets a prescribed period of time for each machine to remain in the second mode of operation.

12. A gaming system as claimed in claim 10 or 11 wherein switching from the second to the first mode of operation is also controlled by the central control unit.

13. A gaming system as claimed in claim 10 or 11 wherein switching from second to first mode of operation is performed manually on each machine.

14. A gaming system as claimed in any one of claims 11 to 13 wherein the timer means comprises group and sub-group timers, the group timers setting a prescribed period of time for a plurality of machines to remain in the second mode of operation, the sub-group timers setting a prescribed period of time for at least one machine to remain in the second mode of operation there being a plurality of sub-group timers for each group timer.

15. A gaming system as claimed in any one of claims 10 to 14 wherein prior to switching from first to second mode of operation, the credit recorded in the credit means of each machine is stored temporarily by the machine, for retrieval by the player when the machine is switched back to the first mode of operation.

16. A gaming system as claimed in any one of claims 10 to 15 wherein any game commenced while the machine is in the first mode of operation must be completed prior to the machine being switched to the second mode.

17. A slot machine substantially as hereinbefore described with reference to the accompanying drawings.

18. A gaming system substantially as hereinbefore described with reference to the accompanying drawings.

DATED this 25th day of September 1989

AINSWORTH NOMINEES PTY. LTD.
Patent Attorneys for the
Applicant:

F.B. RICE & CO.

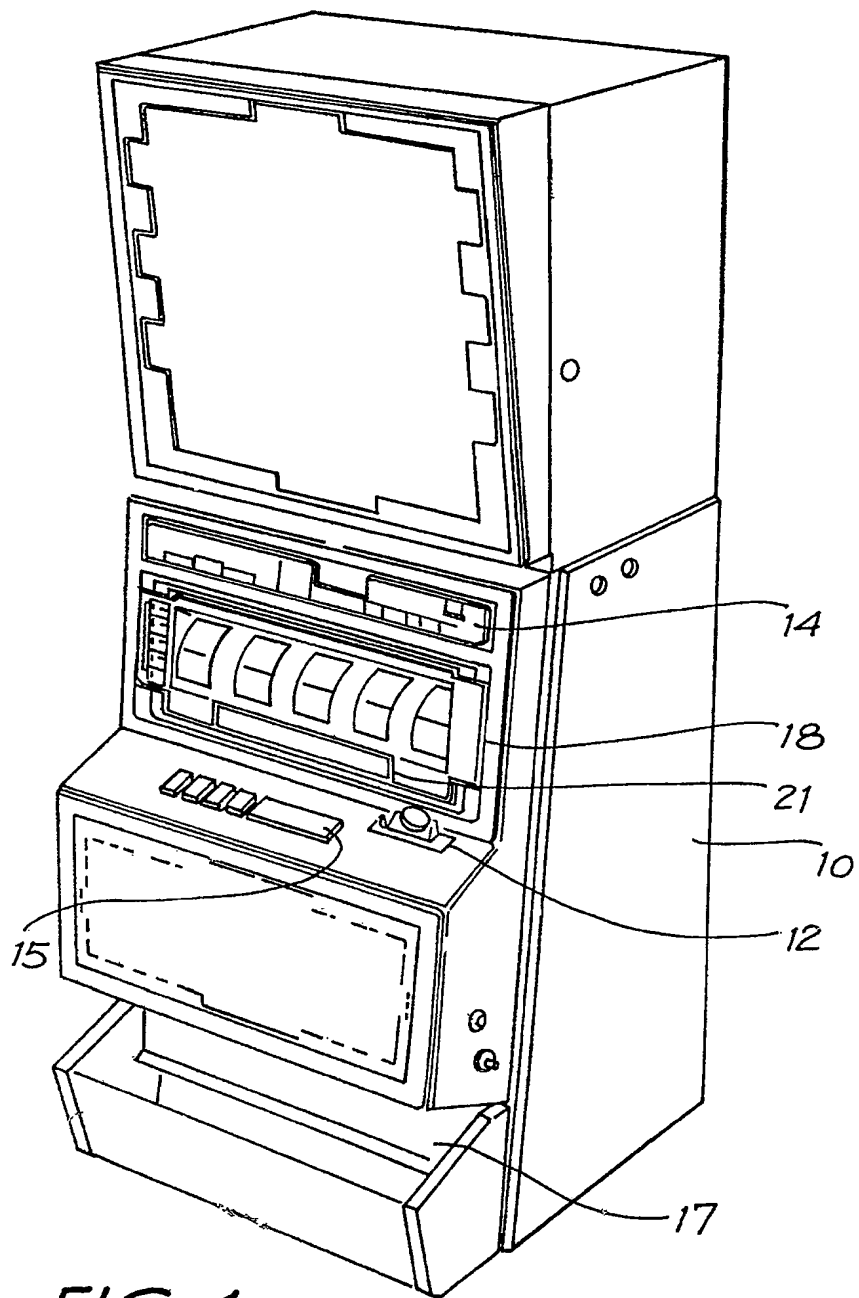


FIG. 1

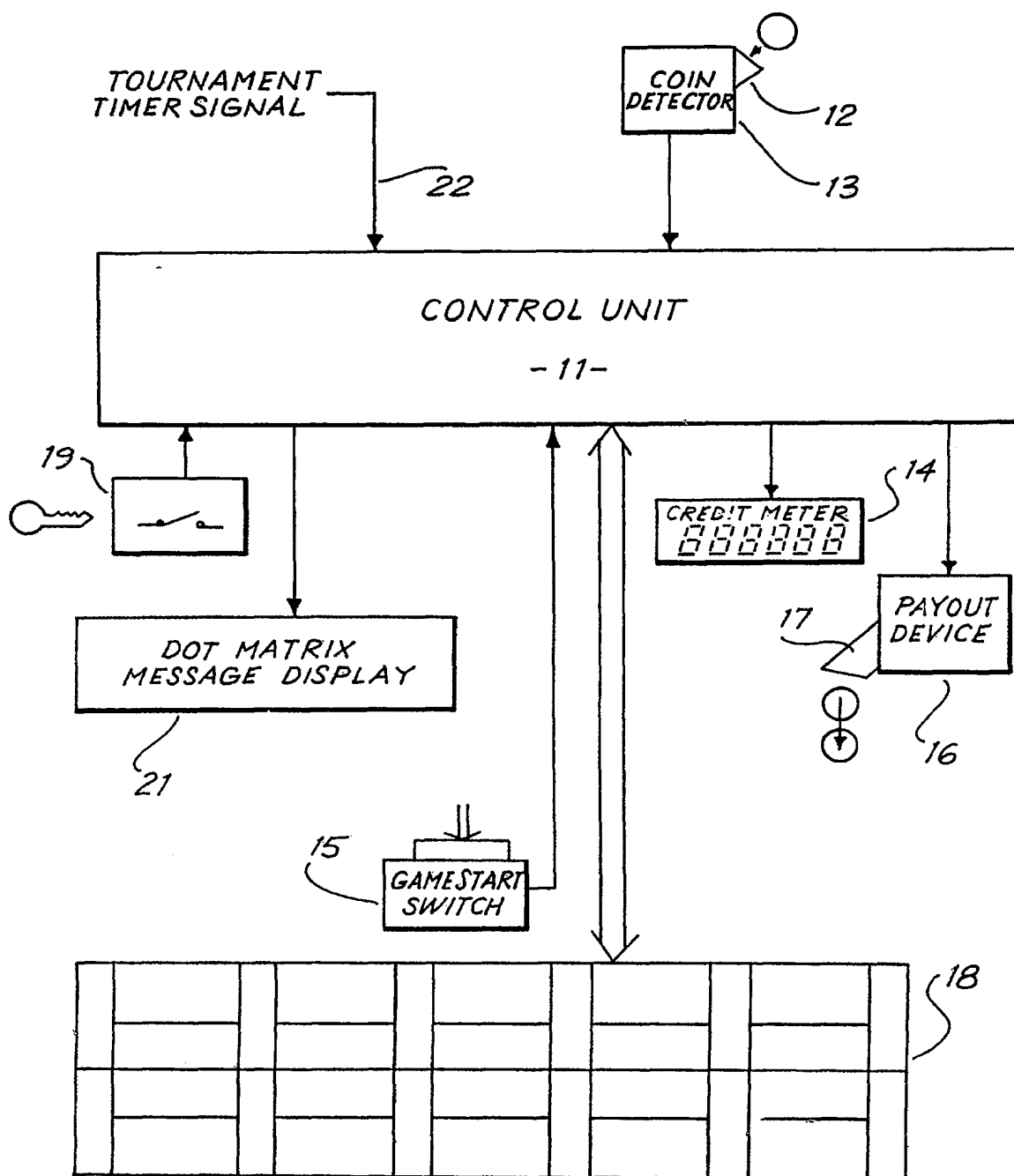


FIG. 2

25 9 00 4308

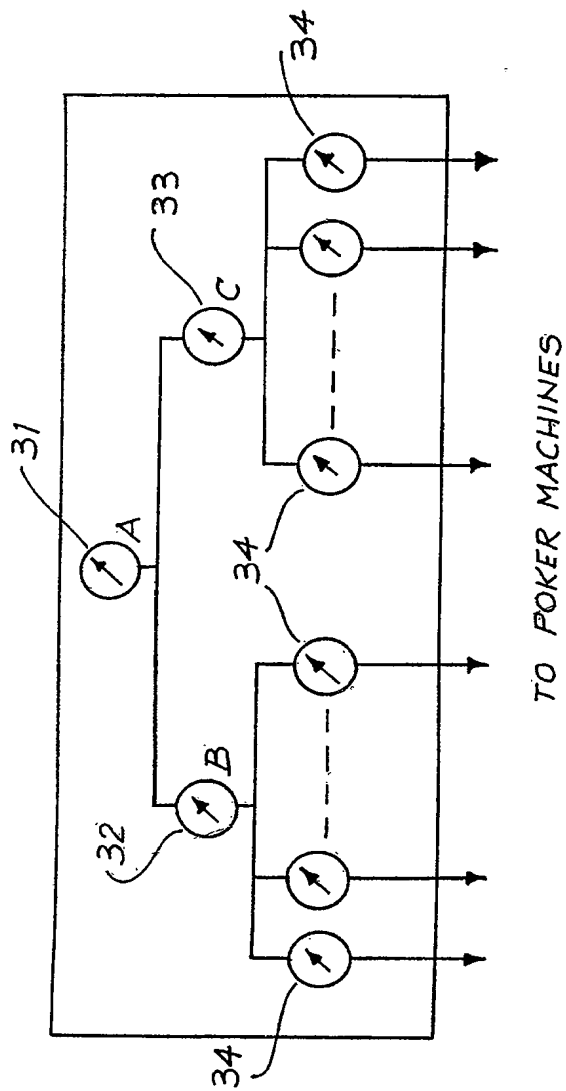


FIG. 3

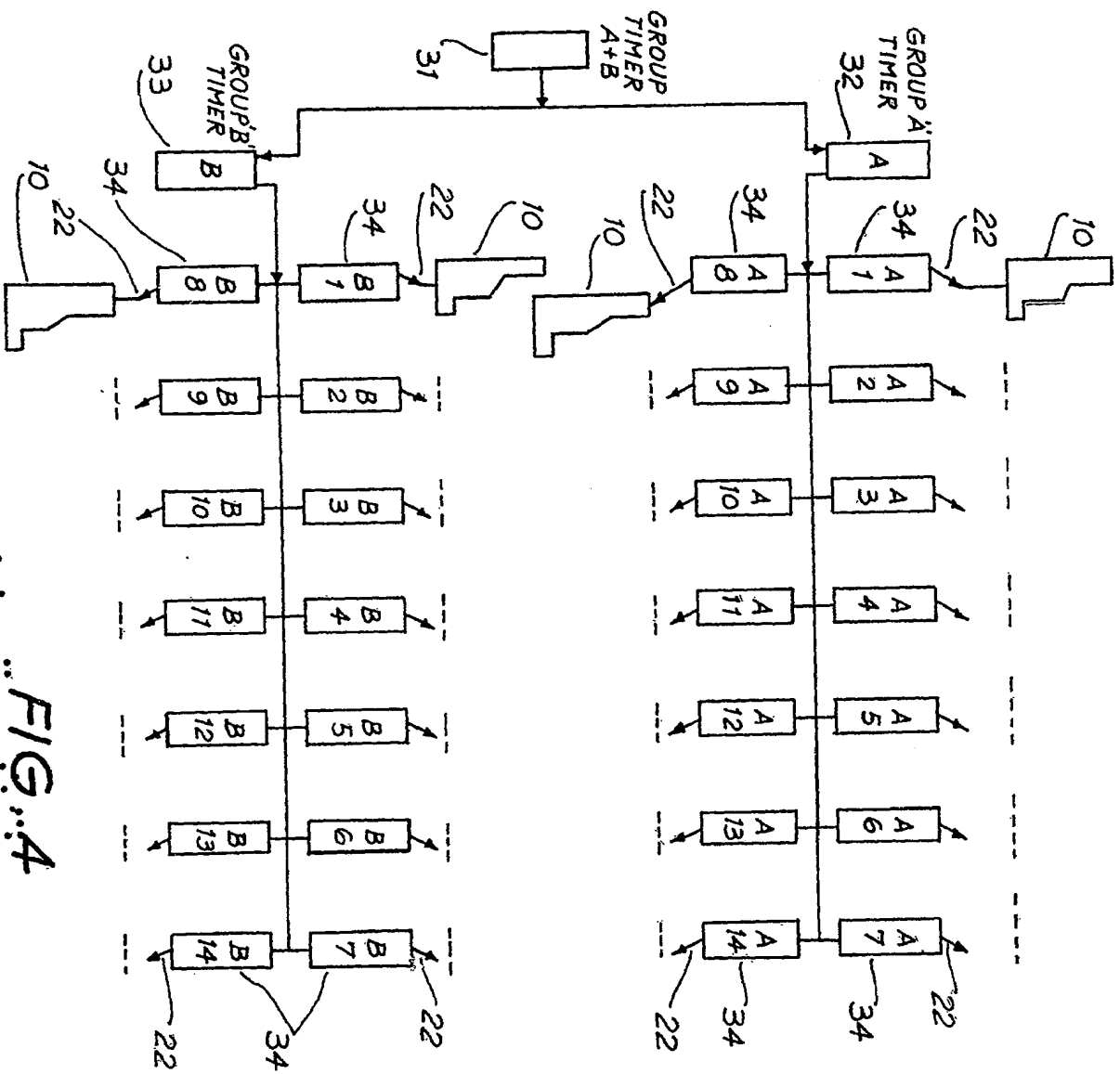


FIG. 4

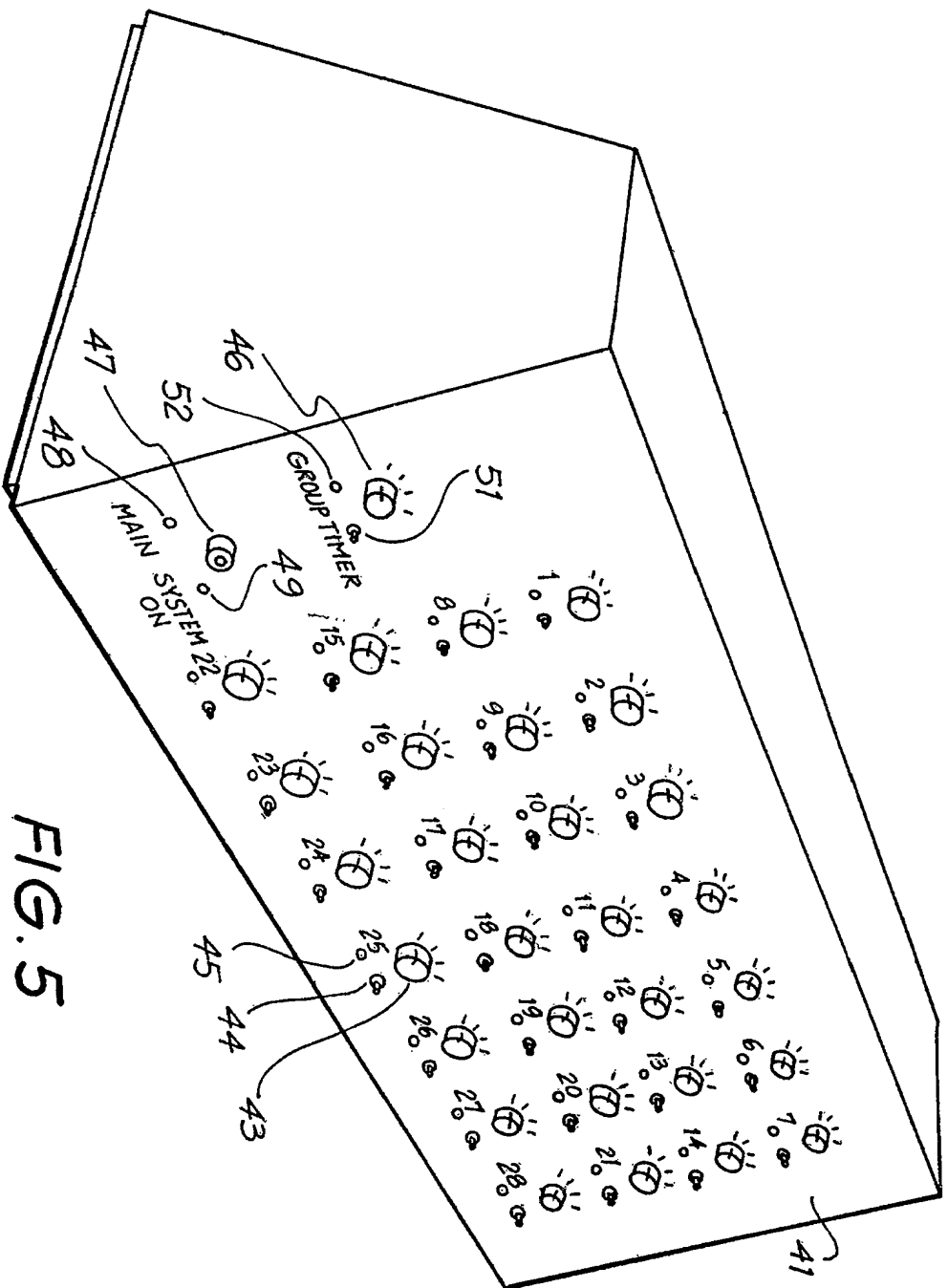


FIG. 5

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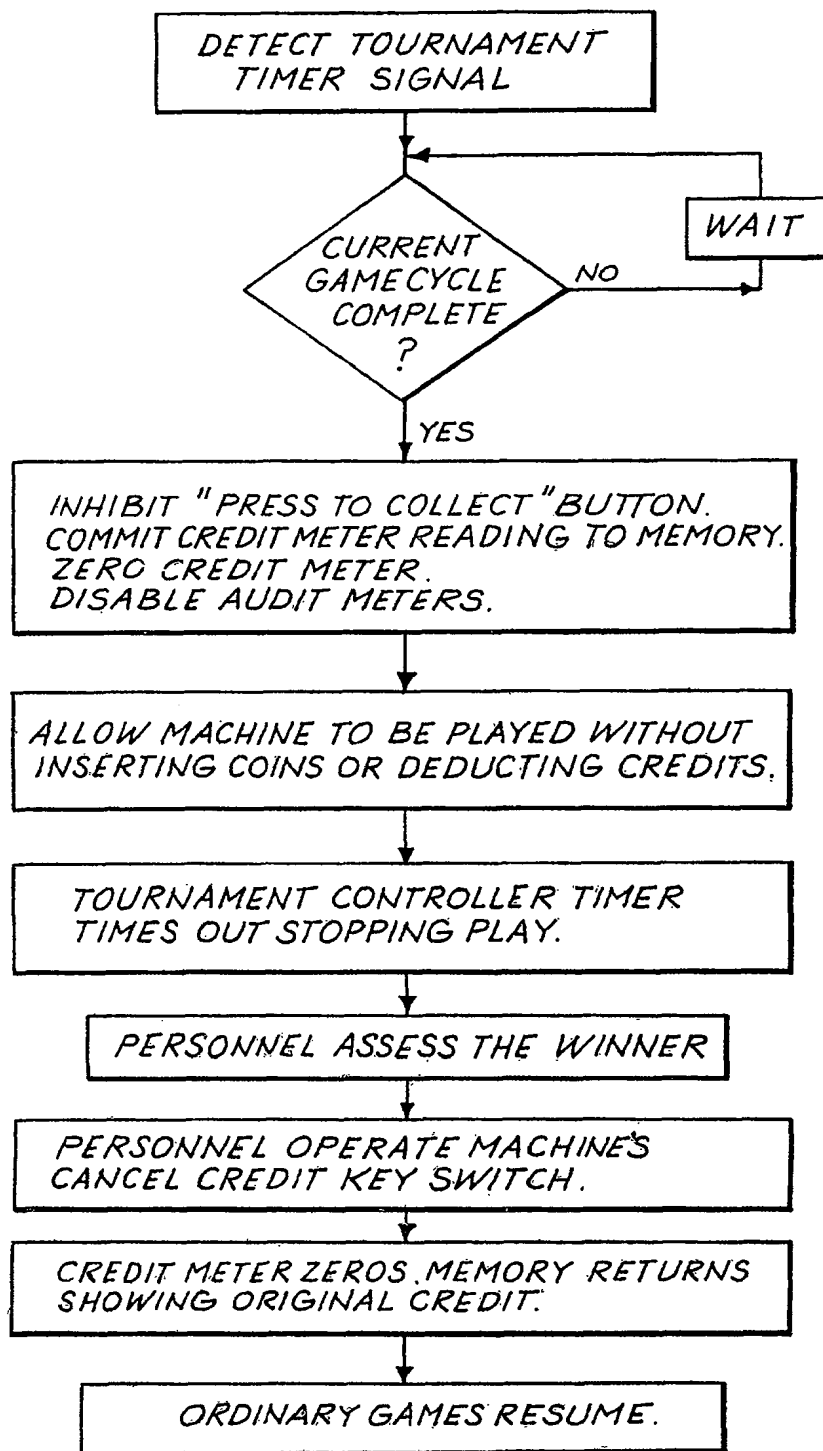


FIG. 6